REMARKS

The pending Office Action addresses claims 1-6, all of which stand rejected. Applicants respectfully request reconsideration based on the remarks submitted herewith.

At the outset, Applicants thank Examiner Noguerola for the courtesy of a telephone interview on January 3, 2008. In particular Applicants and the Examiner came to the agreement that the Jung reference is not combinable with the Diebold reference, as explained in further detail herein. Accordingly, the rejections cannot be maintained.

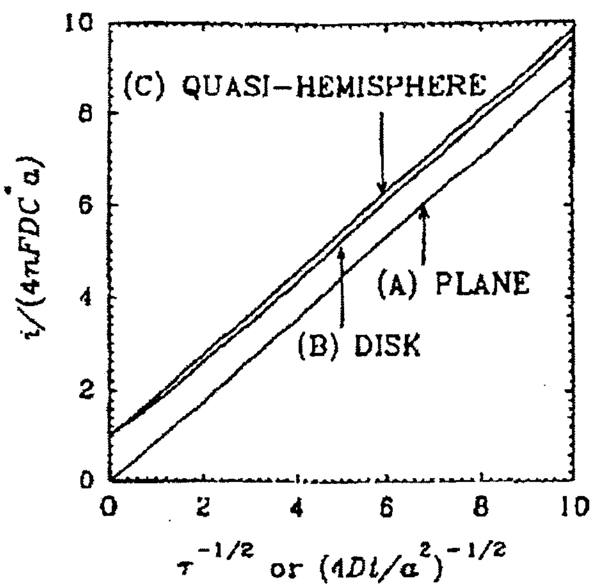
Rejections Pursuant to 35 U.S.C. § 103(a)

Claims 1-4 and 6

The Examiner rejects claims 1-4 and 6 pursuant to 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,437,999 of Diebold et al. ("Diebold") in view of U.S. Patent No. 5,089,320 of Straus et al. ("Straus"), U.S. Patent No. 5,095,407 of Kanezawa et al. ("Kanezawa"), a June 2001 Imaging Technologies Update from Enthone ("Enthone"), U.S. Patent No. 5,243,516 of White ("White"), and an article from the Bulletin of the Korean Chemical Society entitled "Simultaneous determination of Diffusion Coefficient and Concentration by Chronoamperometry at a Microdisk Electrode" by Jung et al. ("Jung"). As agreed upon during the interview, Jung cannot be combined with Diebold.

The teachings of Jung are directed to a disk electrode and *do not work* with planar electrodes, i.e. the types of electrodes taught by Diebold. In fact, throughout the article the authors of Jung indicate that the teachings directed toward a method for calculating the diffusion coefficient would work only with microdisk electrodes, and specifically *would not work* with planar electrodes. (*See* beginning of first full paragraph of first column of page 210 to fourth full paragraph of first column of page 211.) This is because the analysis performed to make these determinations relies on edge effects of the electrodes. While microdisk electrodes have a non-zero steady state current at infinite time, i.e. at the edge of the electrode, a planar electrode has a zero steady state current at infinite time. (*See* beginning of third full paragraph of first column of page 210.) When the steady state current at infinite time is zero, the slope and intercept of the

current equation used to calculate the two unknowns is also zero, and because both the slope and intercept are needed to calculate the two unknowns, the two unknowns cannot be calculated. (*See* beginning of first full paragraph of first column of page 210 *and compare* line (B) and line (A) in the figure reproduced from Jung below (illustrating the chronoamperometric response at three different electrodes, and more specifically, illustrating that the slope and intercept of the planar electrode is zero).)



Consequently, while the current of a disk electrode approaches nonzero intercepts at infinite time, current at a planar electrode approaches a zero value and thus the analysis introduced by Jung is not applicable to planar electrodes, i.e. like electrodes of Diebold and/or the present application.

Accordingly, as agreed upon during the interview, after reconsideration of the Jung reference, independent claim 1, as well as claims 2-4 and 6 which depend therefrom, distinguishes over Diebold in view of Straus, Kanezawa, Enthone, White, and Jung and thus represents allowable subject matter.

<u>*Claim 5*</u>

The Examiner rejects claim 5 pursuant to 35 U.S.C. § 103(a) as being obvious over Diebold in view of Straus, Kanezawa, Enthone, White, and Jung, further in view of U.S. Patent

No. 5,126,034 of Carter et al. ("Carter") and U.S. Patent No. 5,399,256 of Bohs et al. ("Bohs").

As noted above, Diebold in view of Straus, Kanezawa, Enthone, White, and Jung do not teach or even suggest an electrochemical biosensor that includes both a hollow electrochemical cell and a means for measuring from a cell current a diffusion coefficient of a redox mediator in a cell and independently its concentration as claimed by Applicants. Carter and Bohs fail to remedy the deficiencies of Diebold, Straus, Kanezawa, Enthone, White, and Jung. Accordingly, at least because it is dependent upon an allowable base claim (independent claim 1), claim 5 distinguishes over Diebold in view of Straus, Kanezawa, Enthone, White, and Jung, further in view of Carter and Bohs, and thus represents allowable subject matter.

Conclusion

In view of the reasons set forth above, each of the presently pending claims in this application is believed to be in condition for allowance, and reconsideration is respectfully requested. The Examiner is urged to telephone the undersigned Attorney for Applicants in the event that such communication is deemed to expedite prosecution of this matter.

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Respectfully submitted,

By______________________

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PENDING CLAIMS

1. (Previously Presented) An electrochemical biosensor comprising:

(1) a hollow electrochemical cell for measuring a concentration of glucose in a blood sample, the hollow electrochemical cell comprising:

a) at least one non-metal working electrode;

b) at least one counter electrode or counter/reference electrode, wherein the working electrode and the counter electrode or counter/reference electrode face each other, are not co-planer, and are separated by a distance of from about 20 microns to about 200 microns;

c) a spacer interposed between the working electrode and the counter electrode or counter/reference electrode, wherein the spacer comprises a non-conductive polymeric material, and wherein the spacer and the electrodes define walls of the hollow cell; and

d) a fluid permeable side-wall on at least one side of the hollow cell permitting entry of the sample into the hollow cell, wherein the hollow cell comprises an effective cell volume of less than 1.5 microliters; and

(2) a means for measuring from a cell current a diffusion coefficient of a redox mediator in a cell and independently its concentration.

2. (Previously Presented) The electrochemical biosensor of claim 1, wherein at least one non-metal working electrode comprises a material selected from the group consisting of graphite, carbon, and carbon-filled plastic.

3. (Previously Presented) The electrochemical biosensor of claim 2, wherein at least one counter electrode or counter/reference electrode comprises a metal substrate or a metal coated substrate.

4. (Previously Presented) The electrochemical biosensor of claim 3, wherein the metal is selected from the group consisting of gold, silver, platinum, palladium, iridium, lead, and alloys thereof.

5. (Previously Presented) The electrochemical biosensor of claim 4, wherein the metal comprises silver and wherein a reduced form of a redox species or an oxidized form of a redox species is contained within the sample, wherein the sample comprises chloride ions.

6. (Previously Presented) The electrochemical biosensor of claim 5, wherein the fluid permeable side-wall comprises an opening.

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